















## Spline Shaft Ø88.5 Z28

A32-200

The spline shaft is usually ground from a solid cylindrical part with conventional wheels. It allows to change the spline geometry fast and economically by simply changing the wheel-DXF and redress the new geometry on the same wheel, and for small splines the wheel can be kept sharp as being redressed when needed. Pregrinding could eventually be done with a V-shaped CBN wheel, whose V-form fits into most of the spline geometries, to increase grinding efficiency.



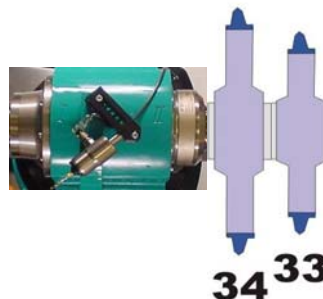
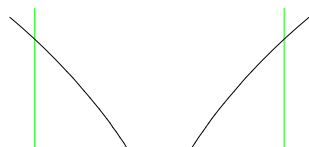
### 1. Cycletime for Production

Tool specifications							
Diameter 88.5 mm, Z 28, Length of spline 103 mm							
Material HSS							
Operations							
	Dress 2 w	Spline Pregr	Spline fin 1	Dress	Spline fin 2	Dress	Spline fin 3
Feed [mm/Min]	100	450	1200	100	1200	100	1200
Power [kW]	1	1	1	1	1	1	1
Cutting feed [m/s]	24	42	42	24	42	24	42
Used wheels							
	33	33	34	34	34	34	34
Grinding time [s]	185	698	451	65	451	64	451
Total cycle time	39 Min 24						

The mentioned cycle times are indicative. The material to be ground, different grinding wheels or other coolants can influence the cycle times considerably.

### 2. Used Grinding Wheels

33	DXF Ø90 C90
34	DXF Ø90 C200



### 3. Machine and Software Requirements

Machines: 5 axes CNC grinders : GEMINI DMR kw 26, dressing unit  
 Control: Fanuc 160i  
 Coolant: Synthetic Oil, pressure 16-18 bar  
 Software: Quinto 4 and 5

responsible engineer: OP,7.1.09

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